

PRODUCT INFORMATION

Isoguanosine-5'-O-triphosphate (sodium salt)

Item No. 38567

Formal Name: 2,3-dihydro-2-oxo-adenosine 5'-(tetrahydrogen triphosphate), tetrasodium salt

Synonyms: 2-hydroxy ATP, isoGTP, 2-Hydroxyadenosine 5'-triphosphate

MF: $C_{10}H_{12}N_5O_{14}P_3 \cdot 4Na$

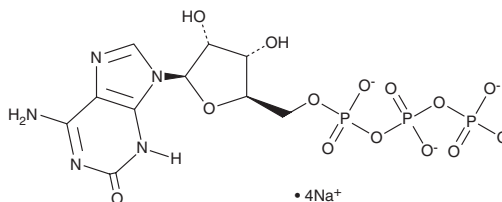
FW: 611.1

Purity: $\geq 95\%$

Supplied as: A 10 mM solution in water

Storage: $-80^{\circ}C$

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Isoguanosine-5'-O-triphosphate is an isomer of guanosine 5'-triphosphate (GTP; Item No. 16060) and a phosphorylated form of crotonoside (Item No. 28219). Unlike GTP, isoguanosine-5'-O-triphosphate does not stimulate microtubule assembly.¹ Isoguanosine-5'-O-triphosphate (2 mM) inhibits transcription and induces T to C mutations in a reverse transcriptase assay.² It has been used to determine the substrate specificity of phosphofructokinase and mutT homolog 1 (MTH1).^{3,4}

References

1. Muraoka, M., Fukuzawa, H., Nishida, A., *et al.* The effects of various GTP analogues on microtubule assembly. *Cell Struct. Funct.* **24**(2), 101-109 (1999).
2. Kamiya, H., Suzuki, A., Kawai, K., *et al.* Mutagenic properties of oxidized GTP and ATP in *in vitro* transcription-reverse transcription. *Nucleic Acids Symp. Ser. (Oxf.)* **50**, 99-100 (2006).
3. Bârzu, O., Tilinca, R., Porutiu, D., *et al.* Specificity of rabbit muscle phosphofructokinase for nucleotides as substrates or as allosteric effectors. *Arch. Biochem. Biophys.* **182**(1), 42-51 (1977).
4. Fujikawa, K., Kamiya, H., Yakushiji, H., *et al.* Human MTH1 protein hydrolyzes the oxidized ribonucleotide, 2-hydroxy-ATP. *Nucleic Acids Res.* **29**(2), 449-454 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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